wherein $|\alpha_a - \alpha_b| \geq 50 \times 10^{-7}/°C$, and

wherein $|\alpha_a - \alpha_b| \cdot (T_1 - T_2) \cdot d \leq 4 \times 10^{-2}$.--

No claim fees are believed to be due as a result of these amendments.

REMARKS

Upon entry of the amendments, claims 1-3, and 5-18 will be pending in the application. Applicants request reconsideration of the rejections detailed in the Office Action based upon the following comments.

Claim Rejections – 35 U.S.C. § 102

Claims 1-3, 5, 7 and 10 are rejected as being anticipated by Greschner (US 5,427,599). The former rejection of claim 4 is moot due to the aforementioned amendments.

Applicants respectfully request that the anticipation rejection be withdrawn because the cited patent fails to inherently or explicitly disclose every feature detailed in the claims, in light of the amendment to claim 1.

Independent claim 1 now details that $|\alpha_a - \alpha_b|$ is $50 \times 10^{-7}/°C$ or higher. This feature was originally detailed in claim 4 and is discussed on pages 7 and 16 of the specification.

Applicants respectfully submit that amended independent claim 1 is allowable over Greschner. Although original claim 4 was rejected in the first and the final Office Actions, these Actions have completely failed to demonstrate how the features of claim 4

could be anticipated by Greschner. Rather, Applicants respectfully submit that Greschner lacks inherent or explicit disclosure regarding $|\alpha_a-\alpha_b|$ being 50 x 10^{-7}/°C or higher. Greschner, to the contrary, teaches, to those of ordinary skill in the art, that $|\alpha_a-\alpha_b|$ should be zero. See column 4, lines 3-8, where Greschner explains that the "thermal expansion coefficient of the stamp material should preferably correspond to that of the glass substrate since...the glass substrate is to be cooled after the forming process, while still in contact with the stamp." From this passage, to those of ordinary skill in the art, Greschner details that α_a (the thermal expansion coefficient of the mold/stamp material) should equal α_b (the thermal expansion coefficient of the base material/glass substrate). Hence, according to Greschner, $|\alpha_a-\alpha_b|$ should be zero.

Applicants further submit that the rejections of claims 2, 3, 5, 7, and 10 should also be withdrawn because these claims depend from independent claim 1, which is not anticipated by Greschner.

Lastly, note that up to now claims 1 and 4 have not been amended. At this time, claim 1 is amended, but only to incorporate the subject matter of original claim 4. Therefore, amended claim 1 retains the scope of original claim 4. The scope of claim 4 has not been narrowed by this Amendment.

Claim Rejections – 35 U.S.C. § 103

Claims 6, 8, 9, and 11-17 are rejected as obvious based upon Greschner.

Applicants respectfully request that the rejection of dependant claims 6, 8, and 11-15 be withdrawn for the reasons discussed above. These claims are dependant on claim 1, which is not anticipated or obvious in view of the cited prior art.

Applicants also submit that independent claim 9 is not obvious in view of the cited prior art, and that therefore the rejection as applied to this claim should be withdrawn due to the recent amendment. The cited prior art fails to provide any teaching, hint, or suggestion that $|\alpha_a-\alpha_b|$ is $50 \times 10^{-7}/°C$ or higher. Rather, those of ordinary skill in the art would have been taught by Greschner that $|\alpha_a-\alpha_b|$ should equal zero. For this reason, Applicants submit that the rejections of dependant claims 16 and 17 should also be withdrawn because they depend from claim 9.

New Claim

Applicants respectfully submit that new claim 18 is allowable. This claim contains the same requirement concerning the value of $|\alpha_a-\alpha_b|$ that is not disclosed in the cited prior art.

Claims 16 and 17

Claims 16 and 17 also have been amended. This is to correct a former typographical error.

CONCLUSION

Applicants respectfully request allowance of the application. If any additional fees are due in connection with the filing of this response, such as fees under 37 C.F.R.

§§ 1.16 or 1.17, please charge the fees to Deposit Account No. 02-4300. Any overpayment can be credited to Deposit Account No. 02-4300.

Respectfully submitted,

Date: February 26, 2003 Signature:

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--1. (amended) A micro-shape transcription method comprising:

preparing a mold having a transcription face on which a concavo-convex pattern is formed,

pressing the transcription face against a base material softened by heating,

then forcibly separating the mold from the base material to transcribe a reverse pattern of the concavo-convex pattern to the surface of the base material,

wherein when assuming a temperature for pressing the mold against the base material as T_1 (°C), a temperature for separating the mold from the base material as T_2 (°C), thermal expansion coefficients of the mold and the base material as α_a and α_b, and the maximum distance between the transcription center of the transcription face and the concavo-convex pattern as d (mm), the following relations (1), (2), and [(2)](3):

$$T_1 \geq T_2 \qquad \ldots(1)$$

$$|\alpha_a - \alpha_b| \cdot (T_1 - T_2) \cdot d \leq 4 \times 10^{-2} \qquad \ldots(2)$$

$$|\alpha_a - \alpha_b| \geq 50 \times 10^{-7}/°C \qquad \ldots(3)$$

are simultaneously satisfied.

9. (amended) A micro-shape [transition] transcription apparatus comprising:

a first mold means provided with a transcription face having a micro-shape;

a second mold means facing the first mold means and holding a base material thereon;

a mechanism for driving at least one of the first and second mold means;

a heating source for controlling temperatures of the first and second mold means such that when a temperature for pressing the transcription face against the base material is T_1 (°C), a temperature for separating the transcription face from the base material is T_2 (°C), thermal

expansion coefficients of the transcription face and the base material are α_a and α_b, and a maximum distance between a transcription center of the transcription face and a concavo-convex pattern is d (mm), the following relations (1), (2), and [(2)](3):

$$T_1 \geq T_2 \quad \ldots(1)$$

$$|\alpha_a - \alpha_b| \cdot [(T_1 \geq T_2)] (T_1 - T_2) \cdot d \leq 4 \times 10^{-2} \quad \ldots(2)$$

$$|\alpha_a - \alpha_b| \geq 50 \times 10^{-7}/°C \quad \ldots(3)$$

are simultaneously satisfied; and

a vacuum chuck for attracting and fixing the base material to the second mold means.

16. (amended) The micro-shape[transition] transcription apparatus according to claim 9, wherein T_1 is 160°C and T_2 ranges from 100-140°C.

17. (amended) The micro-shape [transition] transcription apparatus according to claim 9, wherein T_1 is 180° C and T_2 ranges from 100-150° C.